

TMDLs and the Lower Boise River

Michael McIntyre

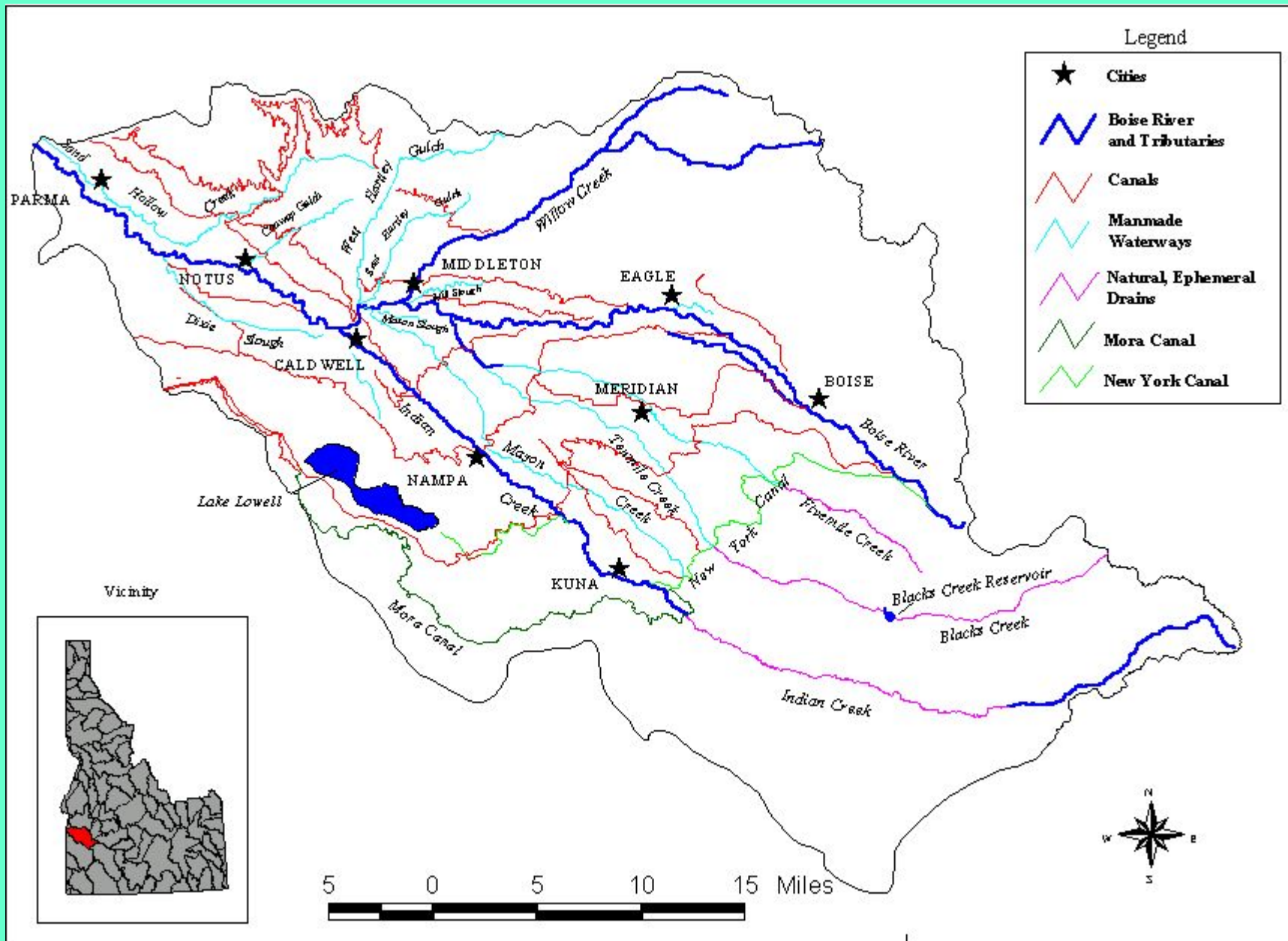
Idaho Department of Environmental
Quality

373.0570

mmcintyr@deq.state.id.us

Introduction

- Overview of Lower Boise River Basin
- What is a Subbasin Assessment
- What is Total Maximum Daily Load
- Lower Boise River TMDL
- Connection to Hells Canyon TMDL
- Stormwater



What is a SBA?

- SBA = Subbasin Assessment
- An assessment of water quality conditions as it pertains to the 303(d) listed pollutants of concern
 - Watershed Characterization
 - Water Quality Concerns
 - Beneficial Use Status / Action Recommendations (Allocations)
 - Pollution Source Inventory
 - Cursory Implementation Measures

What is a TMDL?

- TMDL = Total Maximum Daily Load
- A calculation of the maximum amount of a pollutant a water body can receive from all contributing point and non-point sources and still meet state water quality standards
 - considers background conditions
 - includes a margin of safety to account for uncertainty

$$\text{TMDL} = \text{WL} + \text{WLA} + \text{MOS}$$

- Where:
 - WL=waste load for point sources
 - WLA=waste load allocation for non point sources
 - MOS=margin of safety

Lower Boise River TMDL

- Sediment TMDL
 - Approved January 2000
 - Applies from Star to Snake River
 - 37% reductions necessary from all tributaries to meet the TMDL requirements
 - No additional reductions required from point sources

Lower Boise River TMDL

- Bacteria TMDL
 - Approved January 2000
 - Applies from Glenwood Bridge to Snake River
 - Tributaries must meet the bacteria criteria where they enter the river to meet the TMDL requirements (92-99% reductions)
 - No additional reductions required from point sources

Lower Boise River TMDL

- Nutrient TMDL
 - Has not been developed
 - DEQ determined the Lower Boise's beneficial uses are not currently impaired by nutrients, however:
 - Nutrients from the Lower Boise River are contributing to the impairment of beneficial uses in the Snake River
 - Reductions will be required from point sources

Lower Boise River TMDL Component of SR-HC TMDL

- Reductions from the Lower Boise River were stipulated in the Snake River - Hells Canyon TMDL submitted to EPA in July 2003 and revised July 2004 (approval is pending)
 - The allocation process has been initiated in cooperation with the Lower Boise River Watershed Advisory Group
 - CH2M Hill will be assisting the WAG and DEQ with characterization of the nutrient load (phosphorus) to determine from whom the necessary reductions will come from

Tributary Subbasin Assessments

- Fivemile, Tenmile, Indian, Mason, Sand Hollow Creeks
 - SBAs developed in 2001
 - Use Attainability Analyses (UAA) for the tributaries developed in lieu of TMDLs
 - Developed simultaneously with SBA
 - Changed “cold water” aquatic beneficial use to “modified” aquatic life
 - Went through Idaho’s rulemaking as a water quality standards change and submitted to EPA for approval

Tributary Subbasin Assessments, continued

- UAAs have not been approved by EPA
- If the UAAs are not approved, TMDLs for the tributaries will be necessary
 - primarily for sediment and nutrients

Stormwater

- 1987 Clean Water Act Amendments required stormwater permitting in a phased approach
- Phase I - covered large MSAs (metropolitan statistical areas) like Boise
- Phase II - covers all sources of stormwater including construction on more than 1 acre

Stormwater (cont.)

- New municipal separate stormwater system (MS4) applicants from the Boise and Caldwell areas
 - ITD #3 - Boise
 - Ada County Highway District
 - Cities of Caldwell, Nampa and Middleton
 - Nampa, Canyon and Notus-Parma Highway Districts
 - Housing Authority of the City of Caldwell

Stormwater (cont.)

- Must be consistent with a TMDL for receiving water body, if one exists
- Wasteload Allocations (WLAs) can be expressed as number or in the form of BMPs if considered in the WLAs of a TMDL

Stormwater (cont.)

- Communities indicating they don't own or operate a MS4:
 - Cities of Eagle and Meridian
 - Ada County